

Table S1 PerkinElmer NexION 350D method settings for FI-ICP-MS measurements

Scanning mode	Sweeps	Readings	Replicates
Peakhopping	1	50	3

Helium flow (0.5mL min⁻¹)

Element	m/z	Internal standard	Dwell time (ms)	Washout time (s)
Ga	69	Tb	43	70
Au	197	Bi	47	70

Helium flow (5.2mL min⁻¹)

Element	m/z	Internal standard	Dwell time (ms)	Washout time (s)
Cr	52	Tb	24	70
Cu	63	Tb	24	70
Ru	99	Tb	31	70
Rh	103	Tb	31	70
Pd	105	Tb	31	70
Re	185	Bi	24	70
Ir	193	Bi	31	70
Pt	195	Bi	31	70

Table S2 Thermo Finnigan Element 2 method settings for ICP-SFMS analysis

Scanning mode		Internal standard		Runs	<u>Passes</u>
E Scan		Pr		<u>3</u>	<u>3</u>
Low Resolution (m/ΔM >300)					
Element	m/z	Mass Window	Integration Window	Sample time	Washout time
		(% AMU)	(% AMU)	(s)	(s)
Ru	99	20	20	0.01	210
Rh	103	20	20	0.01	210
Pd	105	20	20	0.01	210
Re	185	20	20	0.1	210
Ir	193	20	20	0.1	210
Pt	195	20	20	0.1	210
Au	197	20	20	0.3	210
Medium Resolution (m/ΔM >4000)					
Element	m/z	Mass Window	Integration Window	Sample time	Washout time
		(% AMU)	(% AMU)	(secs)	(s)
Cr	52	120	60	0.01	210
Mn	55	120	60	0.01	210
Ni	61	120	60	0.01	210
Cu	63	120	60	0.01	210

Table S3 Long-term measurements of QC from FI-ICP-MS analysis (ng.mL⁻¹)

50 ng.mL ⁻¹ QC	Ru	Rh	Pd	Re	Ir	Pt	Au
22/11/2017 (A)	46.4	45.2	47.7	49.5	50.2	48.3	48.4
22/11/2017 (B)	43.7	44.1	47.9	50.9	50.9	48.2	46.5
23/11/2017 (A)	49.4	47.0	51.4	47.9	51.8	49.3	50.5
23/11/2017 (B)	48.0	45.7	47.0	48.1	52.1	49.8	49.0
01/02/2018 (A)	49.3	48.1	49.9	47.5	52.7	49.4	58.2
01/02/2018 (B)	47.7	46.0	46.9	46.1	50.2	48.4	52.0
02/02/2018 (A)	54.7	50.5	51.4	52.4	53.7	51.8	52.0
02/02/2018 (B)	51.4	49.1	52.0	50.9	53.8	51.2	50.9
Average	48.8	47.0	49.3	49.2	51.9	49.5	51.0
Standard Deviation	3.29	2.15	2.14	2.14	1.43	1.34	3.47
RSD %	6.74	4.57	4.34	4.36	2.75	2.70	6.80
Accuracy %	2.35	6.08	1.49	1.66	3.85	0.92	1.90